359/408
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APR 1898

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Opera & Cairns

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BOULT'S COMPLETE SPECIFICATION. (1 SHEET)

Fig. 1.

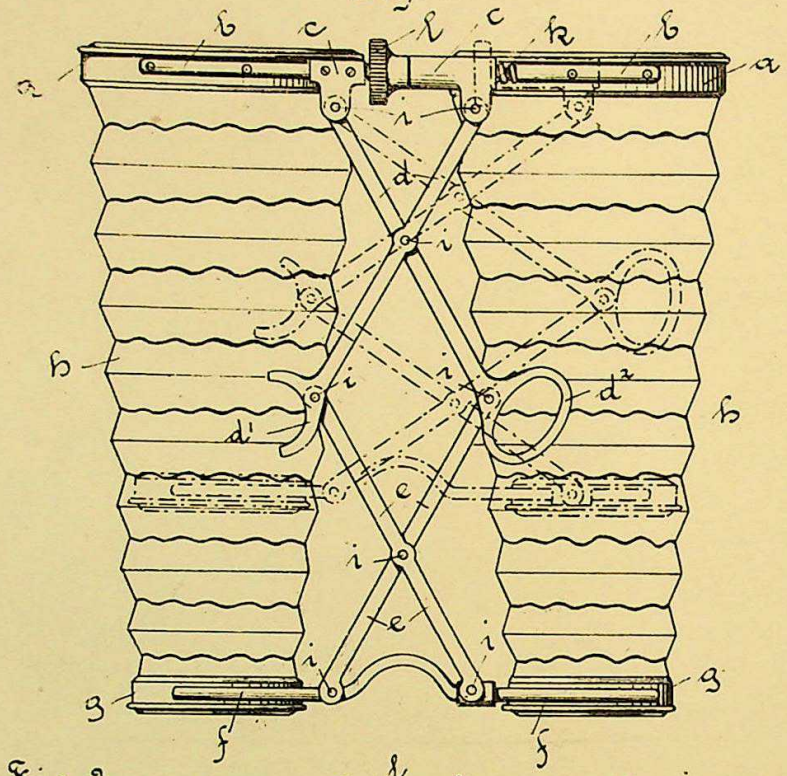

Fig. 2.

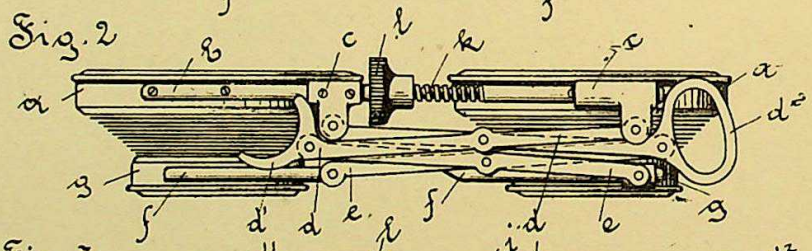

Fig. 3.

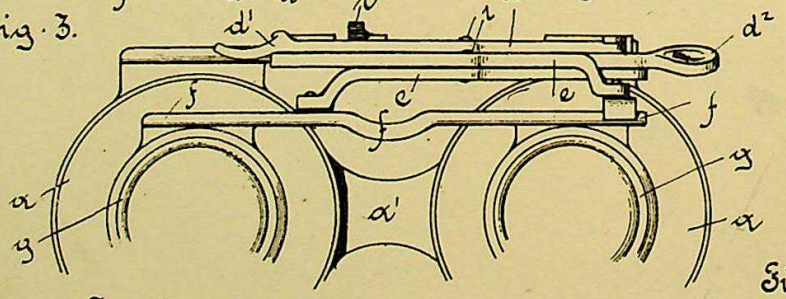

Fig. 4.

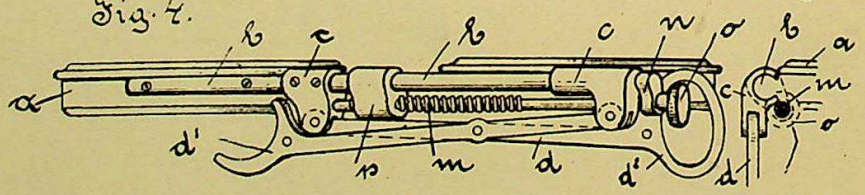

Fig. 5.

[This Drawing is a reproduction of the Original on a reduced scale.]

Malby & Sons, Photo-Litho

359/408

Opera Glasses A3 33

N° 4007 A.D. 1898

Date of Application, 17th Feb, 1898—Accepted, 23rd Apr., 1898

DUPLICATE

COMPLETE SPECIFICATION.

Improvements in or relating to Opera and similar Glasses.

A communication from Otto Schaffhirt, of Wittenbergerstrasse, Dresden, in the Empire of Germany, Merchant.

I, Alfred Julius Boult, of 111, Hatton Garden, in the County of Middlesex, Chartered Patent Agent, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to folding opera and similar glasses which can be opened or closed by means of a frame similar to lazy tongs in combination with folding or collapsable bellows. A device consisting of a spindle and set-screw enables the glasses to be adjusted or focused and fixed at any desired distance apart in order to suit different eyesights while said opera-glass is in its folded position so that when the opera-glass is opened out it is in correct focus for use.

An opera glass according to the present invention is illustrated, by way of example, in the accompanying drawing in which

Fig. 1 is a side elevation in its extended position

Fig. 2 is a side elevation in its closed position

Fig. 3 is an end view,

Fig. 4 being a modified construction and

Fig. 5 a detail of the latter construction.

The frame supporting the two object glasses, and consisting of two frames a for the glasses and a connecting piece a^1, is provided on one side with a rod b on which are mounted two sleeves c, one of which can slide freely thereon. Upon them are pivotted the ends of two intersecting rods d connected together by a pivot pin i. At the other end of these rods d are finger rests d^1 d^2, one of which is preferably a closed ring, the other one being of semi-circular shape. To these rods d are hinged two somewhat similar intersecting rods e which are pivotally connected together by a pin i. The other ends of the rods e are similarly mounted on a rod f secured to the frame of the eye-pieces, that is to say one is fixed and the other can slide thereon. The rod f is bent in the middle to accommodate the nose of the user. The object glasses and eye-pieces are connected in pairs, to prevent light from entering between the glasses, by means of bellows h of paper, leather, metal, fabric or other suitable material, and so folded that when the opera-glasses are folded, the bellows will fold flat and compactly.

In order to regulate the distance between the sets of glasses, there is provided, as can be seen in Figs. 1 & 2, a device consisting of a rod b on which are arranged the sleeves c, this rod being provided with a screw-thread k on which is arranged a nut l between the two sleeves c.

By rotating the nut, the movement of one sleeve towards the centre can be limited as desired. Where therefore the desired adjustment or focus for a given eyesight has been obtained, the nut l is turned so as to abut against the movable sleeve, after which the opera-glass can be folded and when again extended the sleeve c can move only up to the nut on the rod b. Thus the glasses come into exactly the same

position as they occupied before folding. The movable sleeve *c* is provided on its inner or under side towards the glasses with a slit enabling it to pass over the pin or screw connecting the rod to the frame *a*, so that it can move on each side up to the end of said rod *b*. In this way the distance between the object-glasses and eye pieces can be made a considerable one.

In the modified construction shown in Figs. 4 and 5 there is provided instead of the spindle *b* and nut, a special spindle *m* next to the rod *b*, said spindle *m* being guided in a bearing *n* and provided at its outer end with a milled head or knob *o* for operating it. The other end of the spindle *m* engages with a sleeve *p* movable on the rod *b*. By turning the spindle *m*, the sleeve *p* which serves the sleeve *c* as an abutment is adjusted in exactly the same manner as the set screw in Figs. 1 and 2.

This arrangement has an advantage over the one before described of enabling the adjustment to be effected from the side and not from the centre of the glass.

Having now particularly described and ascertained the nature of this invention as communicated to me by my foreign correspondents and in what manner the same is to be performed I declare that what I claim is:—

1. A folding opera or like glass comprising front and back glasses with interposed bellows (*h*) of paper, leather metal or the like and a lazy tongs frame (*d*) (*e*) substantially as described.

2. In a folding opera or like glass of the character described, a device for adjusting the distance between the front and rear glasses consisting of a screw-threaded spindle (*k*) and a set screw carried thereon between sleeves (*c*) of the frame substantially as and for the purpose described.

3. In a folding opera or like glasses of the character described, a slotted sleeve adapted to pass over the pin or pins connecting the guide rod to the lens frame whereby said sleeve may move on each side of the pin substantially as described.

4. In a folding opera or like glass of the character described the modification consisting of a separate regulating spindle (*m*) for operating a stop (*p*) whereby the stop can be adjusted from the side substantially as described.

5. In a folding opera or like glass of the character described finger rests on the folding frame one of which forms a closed ring the other being an open arc of a circle for the purpose of receiving the fingers for holding and manipulating the glass substantially as described.

6. The combination and arrangement of parts constituting the complete folding opera glass mechanism substantially as described or illustrated in Figures 1, 2 and 3 or in the modification Figures 4 and 5 of the accompanying drawings.

Dated this 17th day of February 1898.

BOULT & WADE,
Agents for the Applicant.

Redhill: Printed for Her Majesty's Stationery Office, by Malcomson & Co., Ltd.—1898